

CLAIMS

1 1. A coalescer media flexible container for retaining
2 coalescer media in the coalescer chamber of an oil-water
3 separator, said coalescer media flexible container
4 comprising
5 a flexible enclosure having a top surface and a bottom
6 surface, said top surface and said bottom surface being
7 connected to each other, said flexible enclosure conforming
8 to the shape of the coalescer chamber in which said
9 flexible enclosure is placed, said flexible enclosure
10 having an interior, said flexible enclosure fabricated so
11 as to permit oil to easily pass into said interior of said
12 flexible enclosure, and
13 randomly arranged, loosely packed coalescing medium
14 retained in said interior of said flexible enclosure.

1 2. The coalescer media flexible container according to
2 claim 1 wherein said flexible enclosure is fabricated from

3 a group of materials including plastic mesh, reinforced
4 aerated plastic bags, wire mesh, fabric mesh, and netting.

1 3. The coalescer media flexible container according to
2 claim 1 which includes a planar sheetform member, said
3 sheetform member being placed in the interior of said
4 flexible enclosure directly adjacent said bottom surface.

1 4. The coalescer media flexible container according to
2 claim 3 wherein said sheetform member is secured to said
3 bottom surface.

1 5. The coalescer media flexible container according to
2 claim 2 wherein said flexible enclosure is fabricated from
3 polypropylene.

1 6. The coalescer media flexible container according to
2 claim 1 which includes retrieval means secured to said
3 flexible enclosure.

1 7. The coalescer media flexible container according to
2 claim 6 wherein said retrieval means are secured to said
3 top surface of said flexible enclosure.

1 8. The coalescer media flexible container according to
2 claim 6 which includes at least a pair of retrieval means
3 and wherein said flexible enclosure has a first end and a
4 second end, at least one of said retrieval means being
5 secured to said first end and at least one other of said
6 retrieval means being secured to said second end.

1 9. In combination a coalescer chamber of an oil-water
2 separator and at least one coalescer media flexible
3 container for retaining coalescer media in said coalescer
4 chamber,

5 said coalescer chamber comprising a frame and a lid,
6 said frame having a base, said frame also having secured
7 thereto first and second sidewalls, said first and second
8 sidewalls fabricated so as to permit liquids to easily pass
9 therethrough, and

10 said coalescer media flexible container comprising

11 a flexible enclosure containing randomly arranged, loosely
12 packed coalescing media, said flexible enclosure having a
13 top surface and a bottom surface, said top surface and said
14 bottom surface being connected to each other, said flexible
15 enclosure conforming to the shape of said coalescer chamber
16 in which said flexible enclosure is placed, said flexible
17 enclosure having an interior, said flexible enclosure
18 fabricated so as to permit liquids to easily pass into said
19 interior of said flexible enclosure.

1 10. The combination according to claim 9 wherein said
2 coalescer chamber sidewalls are fabricated from a steel
3 mesh screening.

1 11. The combination according to claim 9 wherein said
2 frame has attached thereto a pair of anchoring rods, said
3 anchoring rods extending substantially parallel to said
4 coalescer chamber sidewalls.

1 12. The combination according to claim 9 wherein said
2 coalescer media flexible container includes a planar

3 sheetform member, said sheetform member being placed in the
4 interior of said flexible enclosure directly adjacent said
5 bottom surface, said bottom surface also being directly
6 adjacent said coalescer chamber frame base.

1 13. The combination according to claim 9 wherein said
2 coalescer media flexible container has retrieval means
3 secured to said top surface of said flexible enclosure.

1 14. The combination according to claim 9 which includes a
2 plurality of coalescer media flexible containers retained
3 within said coalescer chamber, said flexible enclosures
4 conforming to the shape of said coalescer chamber in which
5 said flexible enclosures are placed, each of said coalescer
6 media flexible containers having retrieval means secured to
7 each of said flexible enclosures, said retrieval means
8 extending beyond said coalescer chamber.

1 15. The combination according to claim 9 which includes a
2 plurality of coalescer media flexible containers retained
3 in horizontal layers within said coalescer chamber.

1 16. The method of removing dirty and replacing clean
2 coalescer media from the coalescer chamber of an oil-water
3 separator, comprising the steps of:
4 obtaining access to the coalescer chamber from the top
5 of the tank used as the housing for the separator,
6 removing the lid of the coalescer chamber,
7 removing each coalescer media flexible container
8 retained within said coalescer chamber,
9 once the coalescer chamber is empty, lowering each
10 coalescer media flexible container filled with clean
11 coalescer media into said coalescer chamber,
12 performing any adjustment of said coalescer media
13 flexible container so that it conforms to the shape of the
14 coalescer chamber, and
15 replacing the lid atop said coalescer chamber.

1 17. The method according to claim 16 wherein each
2 coalescer media flexible container has attached thereto
3 retrieval means, said retrieval means enabling said
4 flexible container to be removed from said coalescer
5 chamber, said retrieval means enabling said coalescer media

6 flexible container with clean media to be lowered into said
7 coalescer chamber, and said retrieval means enabling
8 adjustment within said coalescer chamber of said coalescer
9 media flexible container with clean media.

1 18. The method according to claim 16 which includes the
2 additional step of tamping at least one coalescer media
3 flexible container.

1 19. The method according to claim 16 which includes the
2 additional steps of removing and replacing of a plurality
3 of coalescer media flexible containers, said containers
4 when replaced being oriented substantially horizontal one
5 to another.

1 20. The method according to claim 19 wherein said
2 coalescer media flexible containers each have a top surface
3 and a bottom surface, with said top and bottom surfaces
4 being skewed with respect to each other.